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**RETHINKING CONTRACT DESIGN: WHY INCORPORATING
NON-LEGAL DRIVERS OF CONTRACTUAL BEHAVIOR IN
CONTRACTS MAY LEAD TO BETTER RESULTS IN
COMPLEX DEFENSE SYSTEMS PROCUREMENT**

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ABSTRACT

Defense acquisition programs are plagued by surging delays and cost overruns. In particular, contract management of defense acquisition programs has been identified as “high risk” - threatening project performance and leading to the Department of Defense (DoD) overpaying for projects. Empirical findings suggest that parties’ contractual behavior - especially the ability to work together

cooperatively - is an important project success factor. Empirical research also indicates that, in complex projects, contracts are often experienced as a cause of disruption of cooperation. In addressing this problem, contract literature has mainly focused on how to improve contracts by making them better enforcement mechanisms. This article takes a different approach. It specifically focuses on how and why the contract, as a legal mechanism, may obstruct cooperation. It proposes a new normative framework that includes other factors that influence parties' contractual behavior, such as social norms and economic rationality, which are frequently ignored in contract design. The main observation this article makes is that disregarding these other dimensions leads to tension between the norms set forth in contracts and other non-legal norms that drive parties' behavior. It explains why these tensions may undermine cooperative behavior and become a source of disappointing project results. Finally, a framework is provided for diagnosing tensions between the different factors at play, and design principles are proposed to enhance cooperation and project performance by integrating insights from other disciplines into contract design.

INTRODUCTION

Defense contracts are a specific class of contract, however, parties involved encounter similar problems to those found in other complex contractual relationships. – It is challenging to design a governance structure that effectively regulates dynamic relationships and fosters cooperation.

Defense construction and weapon acquisition programs are typical examples of complex multi-party endeavors that are governed by contracts and plagued by delays and cost overruns. The Department of Defense (DoD) is the largest contracting agency of the federal government, procuring approximately 370 billion USD in FY2010 (Rendon, 2013; Ellman, Livergood, Morrow, & Sanders, 2011). The DoD is responsible for procurement of a range of critical supplies and services including commercial-type supplies, administrative services, and highly complex information technology systems and major defense weapon systems (Rendon, 2013). In this article, I focus on the last two, as they are the most complex and therefore seem to face the most problems.

Up to now, the legal and economic literature that addresses the limits of complex contracts has focused mostly on problems that have to do

with the clarity of contracts, such as incompleteness and problems resulting from differences in interpretation (Grossman & Hart, 1986, Williamson, 1996). Little or no research, however, has been done on the effects of contracts on cooperation between parties or the effects that other dimensions of contractual behavior have on cooperation. This article aims to fill this void.

Part I of this article focuses on cooperation as the cornerstone for good project results. It builds on findings from both contract literature and project management literature indicating that contracts used in complex projects often fail to effectively support, and may even undermine, cooperation between parties (O'Reilly, 1999; Walker, Hampson & Peters, 2000; Kamminga, 2008). Part II outlines what we know from literature about why today's contracts are, fundamentally, imperfect devices for coordination in complex projects. It also addresses why contract weaknesses, such as incompleteness, are particularly an issue in complex defense acquisitions. This is followed in part III by an analysis of the largely unexplored relationship between contracts and the other drivers of contractual behavior, and how this has contributed to a breakdown in cooperation. Further, the additional factors that influence contracting behavior and comprise the normative framework are presented. Part IV then presents an analytical framework for diagnosing tension between these factors and proposes guiding principles for designing more integrated agreements.

CONTRACTS AND COOPERATION

Why focus on contracts

For a number of reasons, this paper focuses on the contract document as a source of problems in defense projects. First of all, because contracts play a central role as governance mechanisms in these projects - along with procurement acts and regulations, the contract is the main document regulating the relationship between the agency and the contractor. It is the governance mechanism that legally binds parties to deliver work at a certain date for a certain price and quality level, and states the conditions under which this needs to be done. As such, the contract is one of the drivers of performance (Williamson, 1985).

Moreover, from earlier studies on defense projects, we know that contracts and contract management have been identified as contributors to delays and cost overruns (Rendon, 2013; GAO, 2009a). In response, there has been a strong focus on improving the project and contract

management aspects of these projects. Some attention has also been paid to risk allocation in contracts and incentives focused on cost control in defense contracting (Reichelstein, 1992).

Third, several studies have found cooperation to be an essential factor in project success (Iyer & Jha, 2005; Rendon, 2013). Research by the DoD points out that coordination between DoD agencies and contractors is considered essential for success, but remains a constant challenge (Rendon, 2013). Coordination in complex projects requires organization of the goals, desires and expectations among truncating parties, and the adjustment of behavior to accommodate the set goals between the purchasing agency and contractors (Salbu, 1997). However, contracts do not seem to effectively support cooperation.

Contracts in complex projects

Defense projects, such as procurement of complex systems, are the projects where parties need to rely on contracts the most. These projects are simply too complex to do without detailed contracts.

For the purpose of this article, complex projects are endeavors that involve multiple parties and are multidimensional from a technical, organizational and/or legal perspective. They often combine technical and organizational complexity, as well as an intricate legal framework that may include procurement laws, specific regulations related to acquisition and other internal procedures.

These particular characteristics make defense projects sensitive to disruption of cooperation. Contracts are unable to provide for all potential contingencies – to specify the legal consequences of every possible state of the project – nor can they provide the type of adaptive governance needed in dynamic projects to effectively support the cooperative behavior essential to project success. As a result, a false sense of certainty may arise out of contracts in complex projects. Finally, add to this the typical pressures on contractual parties that comes with the high costs, high stakes, opposing interests, and political sensitivity of these types of projects (Kamminga, 2008). This places significant demands on the contractual framework itself. Moreover, other non-legal mechanisms are not working optimally in projects.

In less complicated relationships, other factors such as reputation effects, reciprocity and the possibility of future trade often mitigate the drawbacks in contracts, but such non-legal mechanisms don't work as well in complex projects. In typical long-term relationships where a supplier provides a service to a client, the reputation mechanisms at work

keep parties on a cooperative track (Lewis, 1986). There is a strong interest in performing well and keeping the customer satisfied in order to continue the relationship.

In projects that are subject to procurement, these mechanisms are much less effective. The procurement system is based on selection of the lowest price, instead of past performance, which weakens reputation mechanisms - there is no longer the opportunity to build credit with a client in order to win the next project under procurement (Donni, 2006). Reputation effects that incentivize parties to be cooperative are no longer present (Bajari & Tadelis, 2001).

In these circumstances, contracts need to focus on their role of underpinning the parties' commitment to their obligations in a legal fashion, as the complexity of these large scale projects provide too many opportunities and temptations for opportunistic behavior (Williamson, 2002).

The limitations of contracts as governance mechanisms in complex defense projects

Despite their importance in complex projects, contracts are often blamed for undermining cooperative behavior. Literature points to various problems with long-term complex contracts that make them defective instruments for organizing an optimal relationship between parties. First of all, these contracts have been found to be rather control driven and full of terms stipulating 'what to do' for each party, instead of focusing on relational aspects (MacNeil, 1978; Williamson, 1985). This can trigger a natural tendency for parties to seek out ways of evading their responsibilities as stipulated in the contract. The way contracts are written is likely to make parties 'dig in' – to take a position and defend it - further undermining the cooperation process. Furthermore, contracts can be difficult to understand making them user-unfriendly, rigid and hard to adapt to a highly dynamic environment.

Factors such as trust between parties, education and skills in management and leadership have been found to be essential in coordination, but are not triggered by contracts (Gulati, 1995). It comes as no surprise that referring to the contract is often regarded as a sign of distrust (Dimagio & Powell, 1983). Some research even indicates that using contracts to enforce promises may be detrimental to trust and the cooperation process (Macaulay, 1963; O'Reilly, 1999)

Additional problems with contracts that have been identified relate to incompleteness, interpretation and changing circumstances, which can

lead to the need for adjustments. Particularly in complex projects these shortcomings come to the surface. As mentioned, mechanisms that would normally keep parties' cooperation on track – such as reputation – do not always function well in complex projects due to the procurement process. Also, there is more room for opportunism than in straightforward transactions, more opportunity for differing interpretations, and therefore discussion and conflict (Williamson, 2002).

This makes the relationship between contracts and project success ambivalent. On one hand, the contract gives much-needed direction to complete a project. Parties cannot do without a clear statement of rights and obligations, scope and payment terms. On the other hand, applying every contract term to the letter may disrupt cooperation and therefore undermine project success.

The interrelationship between contracts and the other factors determining contractual behavior has received some attention, but is not really integrated into contract design literature. The literature on contractual behavior identifies a number of drivers ranging from the contract itself to social norms to economic incentives (Collins, 1999). In defense contracting, this includes laws, regulations and project management, but also more abstract structures such as culture, social norms and customs unique to a certain industry or business sector (Williamson, 2004). The argument in this literature is that behavior of contractual parties is influenced by the sum of the various normative frameworks that apply. How these frameworks relate to contract design has not yet been explored in much detail.

CONTRACTS AND THE OTHER DRIVERS OF CONTRACTUAL BEHAVIOR

Contracts often completely fail to take into account the other mechanisms that drive contract parties' behavior, apart from the legal contractual rules. I will illustrate why this omission may lead to tension between these other drivers and the narrowly focused legal contract and end up undermining the cooperation process.

Contracts are written as if their substance drives all of the parties' decisions, and basically assume the contract controls parties' behavior. To that end, parties' legal obligations constitute the framework of the contract. Clearly, reality is different. People's inclinations are not always in line with the contract language.

For instance, a main driver for a supplier, being an entrepreneur, will be his economic interest. The contract may guide him to some extent, but economic reward is an important determinant in his cooperation with the other party. Furthermore, his behavior will be influenced by customs and general behavioral norms. Ultimately, client and contractor may, among themselves, establish a practice to accomplish things that were not necessarily regulated. These sets of norms together establish a framework that people use to decide how to behave and how to judge others' behavior (Collins, 1999).

The contract often ignores at least some of these other drivers that determine how people behave. This would not be a problem if the circumstances were such that parties could simply be forced to do what the contract stipulates. Unfortunately, complex contracts are limited in their ability to effectively enforce behavior for a variety of reasons (Crocker & Reynolds, 1993).

The tensions that arise due to conflicting frameworks are of a different nature than the tensions encountered due to incomplete contracts. It seems unlikely that these tensions will be resolved simply by investing time in making contracts more complete.

These frictions have to do with the types of rules parties apply and live by, and not with a lack of clarity or incompleteness of the rules set forth in the contract. Clarifying the contract does not resolve an issue if one party believes that taking a textual approach to the contract is simply not appropriate from an interpersonal perspective.

The existence and competition between sets of rules, or normative frameworks, is particularly relevant from the cooperation perspective taken in this article. After all, having different views on which sets of rules should apply directly affects the process of coordination and interaction.

The distinction made between normative frameworks in literature is helpful for diagnosing the tensions that may arise. Having a better understanding of the relationship between these frameworks may lay the groundwork for addressing problems resulting from contracts' failure to address them.

The normative frameworks compared

Contract behavior literature provides a useful description of the types of normative frameworks at play. Contract theorist Hugh Collins distinguishes three dimensions - or frameworks - that are governing the

actions of parties in a contractual relation: the business relation dimension, the economic deal dimension and the contract dimension (Collins 1999).

The business relationship. The first dimension, or framework, that applies is that of the business relationship. This refers to the ongoing relationship preceding or established during the series of transactions that take place during the project. This relationship gets established during enquiries, discussions of plans and the sorting out of problems. Business lunches and other informal interactions sustain it. This relationship cultivates trust, which encourages parties to enter into transactions in the first place (Gulati, 1995; Macaulay, 1963; Saxton, 1997). It thrives on the establishment and preservation of trust. This normative framework also includes customary standards of trade. Actions will be evaluated within the framework as either demonstrations of trustworthiness or the opposite (Collins 1999). Contractual behavior is evaluated by how the parties' actions sustain or subvert the bonds of trust (Ring & Van de Ven 1994; Gulati 1995).

The economic deal. A second dimension of the contractual relationship is the deal or agreement between the parties. Reciprocal obligations are created and the economic incentives and non-legal sanctions are established. The framework taken into account here is economic rationality: both short and long term economic interest are considered in assessing contractual behavior. Actions are basically assessed from the perspective of economic self-interest. The key measurements concern the price or costs of performance in relation to the value of the expected benefits. It requires contractual performance only when the benefits exceed the costs of default. So, for instance, incurring a penalty may be rational. Acting in self-interest in the short-term is unlikely to lead to cooperative conduct in the long run (Granovetter, 1985; Ring & Van de Ven, 1992).

The contract. A third dimension is formed by the contract. This is another frame of reference by which to judge whether the other party has defaulted or cheated. However, the rules instituted by the contract are not necessarily in line with how the law views the conduct. Parties may decide to iron out the details of a potentially divisive issue in a formal way for the purposes of clarifying the problem and determining the allocation of risks and liabilities in advance. This may even be done when such terms would not be enforceable in front of a court. The contract describes how the contract 'thinks about' the relationship between the parties. It emphasizes the autonomous, un-situated obligations constituted by the formal agreement. The way in which the

contract views disputes is a framework, which isolates the transaction from its economic and social context. It treats the obligations undertaken as absolute responsibilities, firm commitments, which cannot be revised except through the process of revising the contract itself by agreement (Collins 1999).

These frameworks are applied within the context of a particular project and within the context of the history of the parties' prior relationship, or the reputation of parties. They are grounded in personal relationships and are important in the construction of market relations.

So, from these frameworks, standards are derived that parties use to guide their own behavior and judge the behavior of the other party. Depending on the set of norms that are the dominant points of reference, the parties can think and converse about their relationship in different ways.

The types of norms that result from the relational and economic dimensions are invoking obligations that are almost contrary to contracts. That is where tensions arise. They tend to exclude contractual thinking and treat it as dysfunctional, lacking the appropriate understanding of events and relations (Collins 1999). Conflict and competition arise when contractual thinking intersects with relational and economic norms based on solidarity - each normative system provides opposing valuations of conduct.

The cooperation risks related to traditional contract design

Generally, when designing contracts, parties only address the contractual dimension. In doing so, contracts artificially reduce the complexity of associations and social relations (Simon 1997). Such an oversimplification of reality has downsides - failing to take other normative frameworks into account can become a threat to the coordination process. If parties were to strictly follow the contract when making decisions regarding the project, the process would work. However, when they rely on other frames of reference to decide what actions to take and how to judge the other's behavior, the contract can undermine its own ability to guide parties effectively and may disrupt cooperation.

A purely contractual perspective ignores much of the context in which the agreement was made, how it fits into the prior relationship, how it affects others and sentiments of trust and loyalty. These factors are irrelevant in the construction of contracts, which is mainly concerned

with developing isolated commitments to the exclusion of the other normative frameworks.

Contracts try to reinforce behavior that is in line with the contract by providing economic bonuses for living up to the contract and/or economic penalties for failure to comply with the contract. (Bajari & Tadelis, 2001). However, if parties simply choose not to follow through on their agreement, the contract loses its effectiveness.. One party may find breaking a promise and risking legal consequences a more attractive option, particularly when legal enforcement is costly, when survival of a company is at stake, or when social norms suggest they behave otherwise.

So, we have arrived at the weakness of contract design this article focuses on – contracts tend to take only legal norms into account. What is evident in business and management literature seems to be ignored in contract design – simply having a contract does not override the influence of other normative frameworks. In fact, it may lead to unwanted side-effects by interfering with fruitful tendencies of parties and missing opportunities to coordinate the drivers of contractual behavior (Poppo & Zenger, 2002). The presence of other systems of norms may be disturbing from the ideal legal perspective, but they are in fact often useful from the perspective of cooperation.

Approaching contracts from these other frameworks may actually support parties' motivation to cooperate, increase their positive perception of the relationship with the other, reduce the likelihood of defection, or strengthen the level of trust leading to further cooperative behavior, such as open communication (Ryall & Sampson, 2003; Kamminga, 2008). These are all factors that positively influence cooperative behavior in working relationships in general, and the lack of these factors may result in distrust, or a lack of exchange of ideas and visions. (Macaulay 1963, Larson, 1992; Dyer & Singh, 1998).

Moreover, these other frameworks often provide the flexibility needed to get projects done. The contractual framework is, by nature, the most rigid dimension and potentially the most adversarial of the three. Unlike the strictly legal approach, the relational and economic frameworks allow for compromise, which can lead to the cooperation and flexibility that projects may need to succeed.

Clearly, behavior is driven by multiple frameworks, and a different framework may be dominant at different times. Uncertainty arises when parties simultaneously rely on different frameworks, which can easily lead to a breakdown of cooperation.

AN ANALYTICAL FRAMEWORK

Tensions between the normative structures that drive contractual behavior may be an important reason why cooperation fails. Focusing on the contract will help determine whether it is incomplete or if there is room for differences of interpretation, however it will not help in identifying the tensions created by the non-legal frameworks. Resolving these tensions requires a broader analysis of the governance mechanism driving parties' contractual behavior. In the next two sections I propose a framework that may be used for detecting such tensions. It can be used for analyzing the extent to which existing contracts fail to take other forces into account. In the following section, I propose some design principles for integrating other normative frameworks into contract design.

A) Assessment of tensions in the contractual environment:

- 1) Identify the applicable frameworks and their characteristics
- 2) Detect competition between frameworks
- 3) Identify the dominant framework
- 4) Find discrepancies in understanding of applied norms
- 5) Identify shifts happening or that may happen

B) Guiding principles for integrating normative frameworks in defense contract design:

- 1) Take an interdisciplinary contract design approach
- 2) Embrace and address instability
- 3) Diagnose and formulate the understanding
- 4) Focus on essentials, then details
- 5) Identify preferred practices and norms and formulate a rule set
- 6) Reassess

Assessing tensions between normative frameworks

The analytical framework for contract design developed here focuses on identifying five elements: 1) the characteristics of the different normative frameworks at play; 2) whether tensions between them exist, and, if so,

the nature of the tension; 3) the dominant framework at different points in time; 4) whether parties are in agreement about the applicable frameworks and about the norms they set forth; And 5) if sudden shifts between frameworks are happening or are to be expected.

The frameworks

What are the characteristics of the different normative frameworks at play? The parties' can think and converse about their relationship in different ways depending on the set of norms they apply.

The frameworks I propose using are the ones identified by Collins described earlier. Depending on the framework used in evaluating the contractual relationship, divergence may exist in how the relationship is perceived, how the contract partners' behavior is evaluated, and the measures used to take actions and evaluate the other's actions.

For instance, a contractor may perceive a defense project either as a step in an ongoing relationship, as an endeavor that is economically beneficial, and/or as a transaction strictly governed by contractual rights and duties. The measures to evaluate the contractual relationship with the client can be: frequent informal enquiries and discussions of plans (relational); strict economic rationality (deal dimension); or, strict interpretation of whether parties have lived up to their obligations flowing from the contractual rights and duties (contract dimension). Often, all of these dimensions will be relevant at some point in the contractual relationship, and parties will consciously or unconsciously apply a mixture of them.

Competing norms

Are there tensions between the frameworks, and if so, of what nature are these tensions? Having multiple normative frameworks function in parallel means that the norms they set forth may be in competition. Certain behavior can, for instance, be rational according to one set of norms and irrational according to another.

One example is a situation in which parties reach an agreement about extra claims submitted by a contractor for a project that is fixed price, and therefore the contract does not include a clear justification to award the claims. Another example is a situation in which the contractor exhibits flexibility to change the agreed upon deliverables to accommodate the purchasing agency, without any legal obligation to do so or added compensation. Both actions may be illogical from a

contractual dimension perspective, but they could very well make sense from an economic or relational dimension.

The dominant framework

What is the dominant framework at different points in time? One framework will often be stronger than another, but the ratio may vary over time. The influence of the relationship framework in contractual relationships can, for instance, turn out to be stronger than the contractual framework. This is evidenced by the presence of contractual behavior that is not justifiable by the contract.

Let's take the earlier example of a contractor asking for additional money for a project that was agreed upon at a fixed price. If the client willingly agrees to the additional payment because it makes sense to him from a relational perspective, the relational framework is dominant.

When the contract is the dominant normative framework, and the focus is on the detailed written terms of the agreement, there are limited opportunities for renegotiation, and therefore a reduction in the flexibility that empirical studies point out to be so important for project success.

The following case can illustrate some of these effects. Imagine that a contractor developing an IT system misses a milestone by one day, but this has only a minor effect on the total planning and progress of the development of the system. The client has a number of ways to respond. First, he could take a strictly contractual approach and choose to apply the full penalty the contract stipulates for this situation. This strict contract approach can lead to a violation of the relational norm to behave proportionally to the fault, so may lead to an escalation of problems. Alternatively, the client could decide to mitigate the penalty, or allow the contractor to propose a new plan and commit to catching up so the end product will be delivered on time. A third option could be to try solving issues amicably by following customs or introducing a give-and-take solution. Both parties may agree on a strategy to limit consequences, and provide the contractor some flexibility in order to prevent disrupting the relationship and spending vast amounts of time discussing and enforcing the incurred penalty. Most likely the second and third approaches have a higher chance of sustaining cooperation, but would perhaps not make sense from a strictly contractual perspective.

Discrepancies in views of applied norms

Are parties in agreement about the applicable frameworks, the norms they set forth, and the one that is dominant in a certain situation? Parties may orient themselves toward one set of norms to the exclusion

of others. For instance, appeals to legal rights or written documentation containing the legal contract are completely justified when adopting a contract framework, but are likely to be regarded as a sign of bad faith or betrayal from a relational perspective (Collins, 1999, 134).

First, differences in views of what framework is applicable, or is dominant at different times, may exist. This may vary from company to company, or even from person to person, since it relates to customs, as well as with one's personal views of how things 'ought to be done.'

Parties may answer the following questions differently: Are parties supposed to simply follow the contract step by step, look for opportunities to be creative as far as the contract allows, or should they follow a different set of rules in day to day operations? The framework selected also depends on mandates companies give to their project managers, as well as those managers' personal philosophy about norms that ought to apply in contractual relationships. These perspectives may vary widely from person to person, as we know from social psychological research about motivations and perception of relationships (De Dreu & Carnevale 2003).

Further, multiple frameworks may be applied at the same time. One can even imagine competing normative frameworks being favored by different departments in the same organization. Discussions could, for example, arise between the legal department that drafted a contract and applies a strictly contractual framework, and the legal department involved in contract management of a project, for whom the relationship may be the dominant framework.

Parties may choose different dominant frameworks and conflict about which is leading may arise. For example, one scenario is that both parties use the contract as the dominant framework. That, of course, is the ideal situation from a lawyer's perspective. In scenario two, they both use one of the non-legal frameworks as the dominant one – the business relational or economic deal. This creates an unstable situation where parties may be forced to revert to the contract to resolve differences amicably, requiring a third party's involvement. In scenario three, the purchasing agency may use the contract as dominant, while the contractor uses the business relation or economic deal framework.

In any of these situations, there is a problem as soon as a disagreement arises, since each party is judging the other's behavior based on different points of reference. For example, the purchasing agency finds that the contractor is not following the procedures as laid out. The contractor justifies this by referring to a give-and-take

mechanism that parties developed regarding change orders allowing for more flexibility in dealing with minor changes, because both parties may need to ask for changes at different points in time.

When these tensions arise out of differences in application and views, the contract comes back into play as the dominant framework. Ideally, this gives parties the answers they were looking for, and helps them stay on a cooperative track. That chance may, however, be slim in practice, as the contract may not provide a clear answer, or may be out of date and no longer reflect what was later agreed upon between parties. Moreover, contracts oftentimes do not provide clear guidance that helps parties continue to approach issues in a cooperative manner, let alone lead parties back to cooperative behavior. Most of the time, the relationship hardens as parties dig in to their legal positions based on their own interpretation of the contract.

Shifts between normative frameworks

Are sudden shifts between frameworks happening, or to be expected? Another consequence of the presence of multiple frameworks is the potential for parties to shift between them over time. These shifts may go in different directions. For instance, a shift from the relationship as the dominant framework to a contractual approach may be responsible for a sudden move away from a more flexible way of dealing with changing circumstances towards a more rigid approach. This explains sudden shifts in dominant normative orientation during a dispute. On the other hand, when trust is built up between parties, the shift may go from a contractual dimension to a more relational dimension.

The shifts that occur away from the relationship dimension are often more problematic. They may, for instance, happen when projects are under financial strain. One can imagine that it often occurs when losses are experienced on the side of contractors, when costs turn out much higher than anticipated, or when the contract was won at a price where margins are thin. Or, due to changes in preferences, the purchaser is suddenly worried about missing deadlines, and may call for stricter application of the contract. A strict interpretation, and narrow reading of the contract's scope, can then lead to claims for change orders and extra work by the client. Also, shifts may occur when compromise does not seem to work anymore and a contractual interpretation seems like the only solution.

Such circumstances may drive both purchaser and contractor away from a more cooperative and flexible approach towards a more rigid, contract driven framework. Particularly the shift from a relational to an

economic or a contractual framework can foster an adversarial atmosphere. Such a shift in the frame of reference hardens the relationship and leads to distrust, which may derail cooperation even further (Macaulay 1963, Dyer & Singh, 1998).

Other circumstances that may result in a shift from one dominant framework to another are changes in leverage from one party to the other. This is important for understanding the contractual behavior of parties. For example, before the selection of the contractor is made, the purchasing agency has some leverage because it is selecting one party from a number of contractors that are all competing to win the contract. After a contractor is selected and the contract is signed, leverage may shift to the contractor side because the client is deeply invested in the project. In this situation, a post bargaining hold-up threat may arise (Williamson, 1985). How the contractor reacts to that new situation depends on the incentives he experiences. To some extent, it is influenced by what the contract stipulates - it hinges on how bureaucratic the decision process is regarding change orders that were foreseen in the contract.

Also at influence are economic drivers. If the contractor takes a short-term economic perspective, they may decide to use their leverage and claim as much as possible for extra work that needs to be completed. On the other hand, longer-term economic drivers may lead the contractor not to push for more money if it may affect the chance to get follow up projects. The possibility of future business may even lead the contractor to agree to less profit, or even a loss. The contractual behavior in these situations is further influenced by what is 'done' and 'not-done' in a particular industry.

How and if these shifts occur likely has to do with the culture of the sector and of the project. Is there a give-and-take mentality, or does every change order lead to further negotiations and result in a discussion with the contract in hand? Also, it may be influenced by how responsive both parties are to requests, how rejections are perceived, and what the tone is during renegotiations. The sum of these factors could make parties behave more cooperatively, or more adversarial, leading to a long negotiation during which both parties spend many resources dealing with changes.

When the contract is back in the picture, it may become apparent that the contract's characteristics are not helpful in resolving differences of opinion, because they may be incomplete, open to multiple interpretations, and/or written in an adversarial manner. Moreover, the

only enforcement mechanisms are arbitration, or going to court, which are expensive and therefore not always attractive options (Scott & Triantis, 2006).

Besides, as conflict increases and cooperation gets further derailed, much time is spent on building a legal case, further worsening relations. In the end, this often leads to a bad outcome for all. In other long-term relations, this may not be a big problem as parties may decide to terminate their relationship when conflicts arise, but when a project is half-finished, parties are deeply invested and more or less forced to continue, or accept a significant financial loss (Williamson, 1979).

The existence of an array of possible scenarios illustrates the chance of problems arising. Better alignment and integration of the competing systems may break the impasse so that adherence to the old formal contract does not disrupt cooperation between parties.

Rethinking guiding principles for contract design

Integrating the different normative systems may be more fruitful from a cooperation perspective. Including these insights effectively into contract design requires revisiting the current contract design from mostly a legal perspective.

Parties that embrace the frameworks and invest in overcoming their discrepancies, may be better at managing their cooperation process. It starts with accepting that there are multiple frameworks driving contractual behavior. Such an approach also requires accepting that parties may shift between frameworks at times throughout the lifetime of the contractual relationship. In other words, by taking this approach, parties do not try to force one framework on the other, but instead take a more global perspective focusing on a smooth transition between the frameworks. This type of approach keeps parties as much as possible out of the 'trenches' and enables them to maintain or loop back to cooperative behavior more easily.

Such a method demands a different approach to contracting and requires redesigning and adjusting the contracts that we know today.

An interdisciplinary approach in contract design

Embracing the different dimensions of contractual behavior, and preventing sudden shifts from one normative framework to another, means integrating the different frameworks in some fashion. That requires navigating into still unknown waters in contract design, but it

may offer opportunities to improve contracts as cooperation devices, which is difficult to do under current contract design principles.

Integrating various dimensions into contract design may help overcome drawbacks of individual frameworks. This would give parties, for instance, the ability to act in the spirit of the contract. Future work opportunities, or the shadow of the future, should also be taken into account. Taking this approach may also be an opportunity to curb high writing costs that often undermine completeness. Yet, integrating these into contracts, continues to allow for oversight and legal enforcement of obligations.

Design principles can be formulated, as the second part of an analytical framework, for doing just that.

Embracing and addressing instability. The need to integrate frameworks stems from the instability that exists without them, as is the case with current contracts. Alternatively, parties can try venturing out of their comfort zone by taking the different frameworks into account in the contract design stage. By simply anticipating the application of the frameworks, they can foresee where they may compete, and anticipate when shifts in the dominant framework may occur.

The first step in integrating the frameworks is to agree on making the contract the dominant framework. To provide a stable situation, parties must agree on all rules governing the relationship being incorporated into the contract. Of the three, it is the most stabile, and the most malleable and controllable framework, which means other norms can be imported into it.

As described above, choosing the personal relationship or economics of the deal as the dominant normative framework carries the risk that those will be largely ignored if a legal dispute arises. Further, these frameworks are susceptible to change when key people leave, or the economics of the deal change. The contract provides the most certainty since it can be enforced, and it is ultimately what a court will consider when a dispute arises.

Focus on essentials, then details. However, instead of starting with the substance of a traditional contract design, parties should initially limit themselves to filling in the essentials of the contract. The essentials are the parts that concern the substance of the project - specifications, conditions and scope of project and timeframe for the final deliverables.

Formulate an understanding of the frameworks. Apart from documenting the contract essentials, a contract can empower parties to

create their own distinct understanding of the rules that should govern their relationship. Unlike other social institutions and types of exchange relationships that may trigger diffuse expectations arising from prior interactions, a contract can contain detailed specifications of the normative standards that should apply to the various aspects of the relationship. This gives parties the freedom to reduce the complexity of the association to the elements that have significance within the contractual framework (Collins, 15, 1999).

The agency may want to focus on those parts of the contractual relationship that are not related to the characteristics of the product or service. That is where there is room to adjust to what both parties like best as the rules governing their relationship. These elements of contracts concern aspects that influence cooperation – the interaction and coordination between parties – and are where ideas can be derived from the other frameworks.

Parties may use aspects from the various frameworks to determine how parties will proceed in their coordination of efforts. What are the norms they agree on? What incentives best meet their interests? What are workable processes to deal with change orders rapidly and at a low cost? Parties may decide on any process as long as it gets them to the agreed upon results under the set conditions.

Identifying preferred practices and norms and formulating a rule set. The next step should be choosing the practices that both parties agree on, and that best support a cooperative relationship. The selection may be based on insights from psychology and economic research on the drivers of cooperation. Studies, for instance, can provide a good sense of the most common human tendencies and traits, the most acceptable social norms and most common triggers of economic behavior, as well as the possible consequences of these drivers of behavior. Considering these during the design stage will help lead to processes that are more likely to be helpful. Contract design can be underpinned by empirical knowledge that can help identify which processes will encourage or anchor cooperative contractual behavior, and which may cause issues to arise.

Incorporate normative frameworks into contracts. The subsequent step should be to incorporate the rules governing the relationship into the contract. Parties may decide to iron out the details of any conflicts they expect to encounter based on a diagnosis of the contract rules.

For example, change orders and the related decision making procedures. The design principle to apply here may be to meet the minimum requirements to make the contract malleable, measurable, and

specific. Integrating processes that would otherwise remain unwritten into a contract makes it possible for parties to refer back to what they agreed upon and monitor behavior. Thus they are creating enforceability and a certain moral commitment. Moreover, organizing the process of negotiating the contract in this manner can lead to parties better understanding of each other (Klein Woolthuis et al. 2005), which further facilitates trust building (Mayer and Argyres, 2004; Poppo and Zenger, 2002).

Based on this analysis, a standard contract may be developed with a number of options regarding rules for governing the relationship that can be negotiated in more detail with the contractor.

Reassessing. A second stage after a contract is signed should be to refine, select and incorporate the aspects of the three normative frameworks that both parties agree on to guide their relationship.

Contract design and defense procurement policy

How does this approach to contract design relate to other initiatives and procurement policies focused on improving defense procurement? It seems to fit in with at least part of the larger scheme of recent efforts in optimizing project performance.

Cost and time overruns in Major Defense Acquisition Programs have become a high-profile problem attracting the interest of Congress, the government and watchdog groups. (Hofbauer et. al. 2011). Recent policies focus on improvements in these areas. Rethinking contract design can contribute to these efforts.

Contract management has been identified as an area needing attention, and studies have been carried out on the critical success factors to consider during the procurement process. Contracting competency models have been developed to increase the workforce competencies in this area. And, procurement process standards have been called for in the area of contract administration and contract close out (Rendon 2008).

The contract design principles set forth in this paper are, however, different from the design principles used in most of the current contracts. There is a range of contracts available, but they mostly focus on economic incentives and are based on the principle of control that trump other points of reference, rather than embracing them. Various types of incentive programs have been studied by economists focusing on the

ideal level of completeness for a contract, balanced with transaction costs. Other approaches have been proposed in contractual literature, such as IPD, for specific projects, but so far there has been little attention on how contracts can play a role in optimally facilitating the coordination process between parties in any type of project by using insights from other disciplines and integrating them into contract design.

This contract design approach seems to fit best in the category of contractual process measures, together with procurement planning, improving contractor selection, and contract administration.

CONCLUSION

The role of contracts in delays and cost overruns in acquisition of IT and defense weapon systems has received some attention, but so far the focus has mostly been on the control and enforcement aspect of contracts, rather than its potential as a coordination device for contractual behavior.

Contracts appear to be insufficient instruments to effectively govern complex projects, particularly where it concerns encouraging cooperative behavior and adaptability to contingencies. Cooperative behavior has been found to be essential to project success, but something that contracts do not naturally facilitate.

Most contract designers tend to focus on the challenge of drafting contracts that provide for maximum control. For instance, writing contracts that cover as many contingencies as possible, and reinforcing certain contractual duties by including bonuses and penalties. The underlying assumption seems to be that, in order to be effective, contracts need to trump other drivers of behavior such as human traits, social norms and customs. In contrast, this paper advocates for a contract design approach that embraces these other dimensions of contractual relationships and the accompanying normative frameworks people base their behavior on.

The paper started by pointing out that findings from empirical studies show that current contract design does not support project success. It has argued that contracts may potentially damage project success by largely ignoring the other non-legal drivers of contractual behavior. While a strictly contract perspective can undermine cooperative behavior, other normative systems can promote it. The comparison of different normative systems and drivers of contractual

behavior, showed what contracts currently provide, and what actually drives parties to cooperative behavior. Competition often arises between norms developed within the relationship between parties, the economic incentives experienced, and the contractual arrangements parties made. This can lead to uncertainty and disagreement regarding the applicable points of reference that should guide contract parties' behavior – the framework arising from the business relationship, the economics of the deal, or the contract itself. Such disagreements can be a source of conflict and, as such, undermine project performance. Ideas are presented for improving contract design by incorporating and aligning the different normative systems into the contract design process. Such an interdisciplinary approach may be needed to draft contracts that support cooperative contractual behavior more effectively in defense contracting.

NOTES

¹ Department of Defense (DoD) efforts to acquire goods and services are often complex and controversial. These efforts are referred to as defense acquisitions. The structure DoD utilizes to plan, execute, and oversee those activities is an intricate and multivariate “system of systems” composed of the requirements, resource allocation, and acquisition systems. (Report of congress 2010, Defense Acquisitions: How DOD Acquires Weapon Systems).

² Best Buying Power (BBP) includes 36 initiatives for implementation of best practices launched in 2010, encompassing a set of fundamental acquisition principles to achieve greater efficiencies through affordability, cost control, elimination of unproductive processes and bureaucracy, and promotion of competition. BBP initiatives also incentivize productivity and innovation in industry and Government, and improve tradecraft in the acquisition of services (DoD, BBP 2010).

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